AP PHYSICS - COURSE DESCRIPTION

John Macuk, rm. 416

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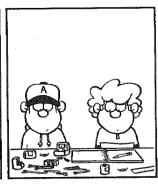
What AP Physics is about

Science is a process of inquiry and experimentation, and AP Physics does this at a college level. This class covers topics in the AP Physics B exam, which requires advanced algebra & trigonometry skills. We will be using College Physics AP Edition, by Randall Knight et al. I also recommend The Cartoon Guide to Physics, by Larry Gonick, for a fun way to learn the concepts and gain understanding.

| First semester | Second semester |
|-------------------------------------------------|-------------------------------------------------------------|
| Linear Motion | Waves and Optics |
| • 2D and Projectile Motion | Electricity & Magnetism |
| Forces & Newton's laws | Thermodynamics |
| Momentum & Conservation | Nuclear Physics & Quantum Mechanics |
| Energy & Conservation | AP project |









I expect my students to know and understand the **Arlington HS Mission and Expectations** and the **Student Handbook**, which you will find on the school website; below is a summary of how they will be applied in our class:

Social and Civic Expectations

Personal Responsibility

- ✓ Students will be punctual and prepared for class.
- ✓ Students will bring a note for each absence and make up any work missed.

Social Responsibility

- Students will work safely in a variety of classroom settings.
- Students will practice respectful behavior in a variety of classroom settings.

Critical Thinking

- Students will read and analyze their textbook, assignments and assessments.
- ✓ Students will complete all assignments at an acceptable level and on time.

Communication

- ✓ Students will record homework in a planner and maintain a well-organized science notebook.
- ✓ Students will promptly return any material requiring a parent signature.

Academic Expectations

Grading Scale:

As described in the Student Handbook, but please note that I do not treat D's as an acceptable grade! If you have a less than passing grade (C-) on any work, I will expect you to redo the assignment to earn a passing grade!

Grading Categories:

✓ Classwork & Labwork 40%
✓ Homework 10%
✓ Quizzes 20%
✓ Tests 30%
100%

Student Materials

- ✓ two composition books one *should be graph ruled*
- one 1.5" binder with at least four (4) dividers
- ✓ Pens and Pencils
- ✓ Scientific Calculator (graphing recommended)

Student 1ST HOMEWORK, due tomorrow

Go to my wiki page and complete the Student Data form, including the question below: What do I expect you to choose to do while you build your future now?

<u>Classwork and Homework:</u> You can expect to have online homework for the week. I expect my students to do the assigned homework and come prepared to class with their materials and homework. See me or email me if you need help or are having difficulties! That's what I'm here for!

For both classwork and homework, I encourage my students to learn collaboratively, but each student must hand in original work of their own. See the **Student Handbook** for the school's Academic Integrity Policy, definitions of Academic Dishonesty and Plagiarism. *Tutoring others is encouraged – giving answers is not!*

Our textbook has valuable online resources: your student access code is in the introductory powerpoint. Go to www.PearsonSchool.com/Access and follow the directions; select our book title under "Register Your Code Here". Follow the on-screen instructions to register your code and create your personal login.

Doing work in small pieces regularly is much easier than the night before a test or quiz!

Expect a comprehensive quiz at the end of the week – be prepared!



Note for Parents:

<u>Ask</u> what she did in school today: if she says "nothing" or can't show you her notes and assignments, prompt her to produce them!

We will be doing something fun and exciting and learning new things every day! (...OK, practically every day...)

<u>Attendance</u> is a crucial element of success at Arlington HS. In this class, performance is the largest part of the grade; if your child misses class, it is her responsibility to find out what she missed and make up classwork and homework. (NB Assignments missed due to unexcused absences or suspensions may not get any credit!)

<u>Homework</u> is exercise for your brain that strengthens your mental muscles; the most important thing you can do for your child is to provide a quiet space to study and to check that homework is being done. If your child says there is no homework assignment, ask to see her assignment planner.

The best way to improve your grade is to do all assignments on time, and re-do poor ones!

<u>Communicate</u> with me if you are concerned about your child's homework, or want to know how she is doing in class. Visit my Wiki page http://macuk-arlington.wikispaces.com and e-mail me at jmacuk@arlington.k12.ma.us_.

I look forward to a great year with you!

Mr. Macuk

Parent 1ST HOMEWORK, due tomorrow

Please go to my wiki page and complete the Parent Link form. Add any questions or concerns you want to ask me about.

AP PHYSICS - COURSE DESCRIPTION for Parent Night John Macuk, rm. 416

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What AP Physics is about

While all my physics classes are about Science and learning how the world around us works, AP physics is unique in that it necessarily involves "teaching to the test". This class covers topics in the AP Physics B exam; as such, it requires advanced algebra & trigonometry skills. We will be using College Physics AP Edition, by Randall Knight et al. I also recommend The Cartoon Guide to Physics, by Larry Gonick, for a fun way to learn the concepts and gain understanding.

What we will be covering:

| First semester | Second semester |
|-------------------------------------------------|---------------------|
| • Linear Motion | Energy Conservation |
| • 2D and Projectile Motion | Waves and Optics |
| Forces & Newton's laws | Thermodynamics |
| Momentum & Conservation | AP project |

As you can see, the pace is grueling and the work load is intense! While there will be inquiry-based labs and experiments, the emphasis will be on preparing for the AP exam.

Academic Expectations

I expect my students to know and understand the Arlington HS Mission and Expectations and the Student Handbook, which you will find on the school website; below is a summary of how they will be applied in our class:

Grading Scale:

As described in the Student Handbook, but please note that *I do not treat D's as an acceptable grade*! If your son or daughter have a less than passing grade (C-) on any work, it will be marked incomplete (I) and I will expect them to redo the assignment to earn a passing grade!

Grading Categories:

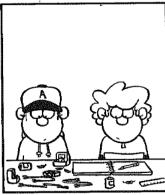
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 - ✓ Homework 10%
 - ✓ Quizzes 20%
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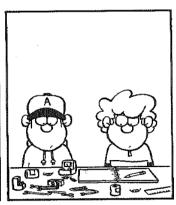
100%

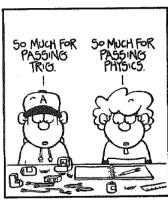
What must be brought to every class:

- ✓ two composition books one *should be graph ruled*
- ✓ one 1.5" binder with at least four (4) dividers
- ✓ Pens and Pencils
- ✓ Scientific Calculator (graphing recommended)







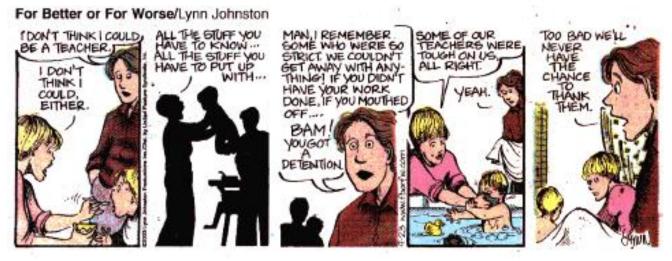


<u>Classwork and Homework:</u> Expect to see weekly online homework. I also expect my students to complete at home any assignments not finished in class. *Make sure your child sees me or emails me if they need help or are having difficulties!* That's what I'm here for!

NB I encourage my students to learn collaboratively, but each student must hand in original work of their own. See the **Student Handbook** for the school's Academic Integrity Policy. *Tutoring others is encouraged – giving answers is not!*

I expect my students to approach work as they would at their first jobs; check for assignments being done late at night or all at once. Doing the work in small pieces regularly is much easier than the night before a test or quiz!

NB Expect your child to be reviewing for a comprehensive quiz at the end of each week – check Thursday evenings!



What you can do to help your child:

Ask what she did in school today: if she says "nothing" or can't show you her notes and assignments, prompt her to produce them!

We will be doing something fun and exciting and learning new things every day! (...OK, practically every day...)

<u>Attendance</u> is a crucial element of success at Arlington HS. Even in this class, performance is still the largest part of the grade; if your child misses class, it is his responsibility to find out what he missed and make up classwork and homework. (NB Assignments missed due to <u>unexcused absences</u> or <u>suspensions</u> may not get any credit!)

<u>Homework</u> is exercise for your brain that strengthens your mental muscles; the most important thing you can do for your child is to provide a quiet space to study and to check that homework is being done. If your child says there is no homework or class assignment, ask to see her daily planner.

The best way to improve your grade is to do all assignments on time, and re-do poor ones!

<u>Communicate</u> with me if you are concerned about your child's homework, or want to know how she is doing in class. Visit my Wiki page http://macuk-arlington.wikispaces.com and e-mail me at jmacuk@arlington.k12.ma.us.

I look forward to a great year with you!

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